



May 21, 2021

Mrs. Lucy Sloman, AICP
City of Issaquah
1775 12th Ave NW
Issaquah, WA 98027

Project: Issaquah High School #4 and Elementary School #17, AHBL No. 2180412.10
Subject: Design Criteria Narrative

Civil Engineers

Dear Mrs. Sloman:

Structural Engineers

This letter is provided to summarize compliance of the Issaquah School District, High School No. 4 and Elementary School No. 17 project with applicable City of Issaquah site development and sub-area plan design criteria. The applicable design standards for this project are contained within the Issaquah Municipal Code (IMC) Chapter 18.07 and certain portions of the Central Issaquah Development and Design Standards.

Landscape Architects

Community Planners

Project Overview and Development Details

Land Surveyors

Issaquah School District, High School No. 4 and Elementary School No. 17 sit on 40.79 acres of the former Providence Heights College. The site perimeter is heavily wooded with a large clearing in the middle. This property fronts 228th Ave SE and borders Issaquah and Sammamish. In January 2020, the site was rezoned to Community Facilities – Facility (CF-F), which is compatible with public school zoning. The neighboring Providence Point retirement community borders the property to north, west and south and is a mix of single family residences, apartments and condominiums with several larger scale community facilities such as a Clubhouse, Indoor Pool, Café, Apartment building, Fitness Center and tennis courts. Beyond Providence Point, lies single-family residential developments with retail and Pine Lake Middle School to the north.

Neighbors

Main access to the schools, off 228th Avenue SE, is from a new entry boulevard that meanders through the trees, climbs up roughly 100' of elevation, with terraced retaining walls on either side, and arrives at the top of the campus at an intersection with baseball and softball fields to the right, a drive to the left to the High School for parent drop-off, student and staff parking, or straight to the Elementary School. School buses continue straight (west) to serve the Elementary School and south student entry of the High School. This main boulevard is defined by plantings (both of seasonal interest and buffer character), pedestrian sidewalks, pedestrian scale site lighting and vistas to the schools.

Site access was carefully considered to provide a safe distance from adjacent intersections, preserve existing trees and minimize site grading. Site improvements along 228th are anticipated including a traffic signal at the entry drive. Current traffic studies support a single entry access for students, staff, parent drop-off and buses while maintaining the existing southern entry for emergency vehicle access only. Traffic analysis also supports projected required parking counts for the Elementary School, High School and Stadium.

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Per IMC Chapter 18.07.480(E)(9), the facility has been designed with wayfinding signage to inform users of access points. Photometric analysis of the site showing the proposed lighting

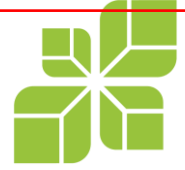
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system will provide a safe condition for students and users of the facility is also included in the submittal package.

Per IMC Chapter 18.07.480(E)(17), new facilities are required to establish that alternative sites have been considered and that the proposed site is best suited for the development. The District worked with a professional real estate broker over a period of years to identify property suitable for the needed schools. King County in 2012 amended the Countywide Planning Policies and prohibited the siting of new schools outside of the Urban Growth Boundary. This action eliminated the District's ability to use an existing land banked 80- acre rural site and effectively eliminated from consideration for future schools roughly 70% of the District's land area (65,000 acres total, of which 22,000 is designated urban). The District's broker determined that, of the 22,000 acres within the Urban Growth Boundary, the available acreage drops to only a few hundred acres after deducting for sensitive areas, developed and fully utilized properties, publicly held properties (Community Facilities, Parks), and other development constraints (restricted utility extensions, isolated small acreage, etc.). The District's broker searched extensively throughout the District's urban area, focusing on all available developable land in locations near school populations and identified service area needs. He estimates reviewing close to 700 acres of potentially workable school sites and then, after eliminating some of those parcels based upon development constraints, conducted a more focused review of potentially viable school sites. The broker's work considered the City's compact school guidelines and, given urban land constraints, nontraditional and smaller sites. The Project site was the only viable site within the urban area of the District for a high school program and, at that time, was being marketed for development at its highest best use of approximately 140 single family homes. The proposed project site is located in the correct area based on the regional needs of the district. The site is also a suitable size for both an elementary school and high school. The project design team has spent countless hours developing a site plan that we believe meets the needs of the district while also meeting jurisdictional requirements.

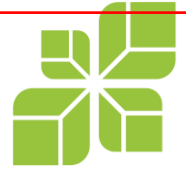
Building Location

The existing topography and landscape is steep and wooded around the perimeter with a large, relatively flat clearing in the location of the former Providence Heights College. The college has been removed leaving a vacant open area central to the site.

The site has a rear setback of 20', side setbacks of 6' and a front setback of 10' as determined by the most restrictive contiguous zoning, SF-SL. The project is proposing a voluntary perimeter buffer that exceeds code standards as a goodwill gesture to the neighboring parcels. This buffer will maintain existing vegetation as possible and replant vegetation per IMC 18.12 as needed.

There are existing wetlands found on the property. Wetland B is located in the southwest corner of the property. No building or land disturbing activity is proposed in this area of the site. Wetland C is located within a roadside ditch along the existing access road to the south. It has been determined that this wetland does not provide an undisturbed connection to other wetlands and offers low value for wildlife functions. Removal of this wetland will be mitigated offsite.

In order to minimize disturbance to the existing land and maintain the natural topography of the site, the high school was sited within the large clearing, spanning east to west for optimal solar orientation, and is three stories in height to minimize its footprint. The tallest portion is approximately 60 feet which is less than the 65-foot maximum allowed per Table 18.07.480



IMC. The elementary school takes advantage of the existing topography with a two-story Admin, Gym and Library wing at the higher elevation and a three-story classroom wing that steps down to the west.

Per Table 18.07.480 of the IMC, the project is required to meet a Floor Area Ratio (FAR) of at least 0.75. An AAS has been requested for a reduction in the FAR ratio. Current site configuration yields a .421 FAR and includes the maximum projected build out with a 71,283 sf Elementary School, 226,552 sf High School plus a 13,553 sf High School addition and a total of (8) portables. Covered structures are included in the Building Area, such as the Elementary School covered play structure, grandstands and pedestrian covered areas. The parking structure is not included. Athletic fields, wetlands, buffers, setbacks and utility easements reduce the overall site area. While counted as part of the buffer along 228th it should be noted that the tree save area is also intended to be used for Earth Sciences classes, forest restoration and conservation.

The project site has a single frontage road along one side of the property. There is a significant grade change from this road to the central portion of the site. The central portion of the site has been previously cleared and flattened from previous development. Based on this constraint, the buildings have been designed to be on flatter portions of the site with an access road serving them to minimize the amount of earthwork required. This saves as many significant trees as practical and reduces overall building and site construction costs for the project. If buildings were constructed within 20' of the frontage as required by the IMC, the buildings would need to be cut into the existing hillside. This would require removal of the large, significant trees along the frontage that are proposed to meet the City's tree retention requirements and screen the project site from the 228th ROW. Additionally, constructing the buildings into the hillside will require significant cost and time impacts to a public-school project that is already facing budget and schedule impacts. Making the buildings more expensive to construct will take away from other much needed curriculum from the project.

"Build-to-line" per IMC 18.07.480 is "the required placement of the building(s) on property frontage between the building and the right-of-way or private street edge if there is no right-of-way. Additional requirements for the area in between the property line and build-to line can be found in subsection (E)(13) of this section." If the facility is not built to the property line, the following is required in addition to other applicable design standards:

- a. Vehicular circulation and/or parking are not allowed in the space in between the building and the property line.
- b. The space in between the building and property line shall include landscaping with evergreen plantings to maintain year-round interest in combination with other hardscape elements, such as seat walls, benches, bicycle parking and other similar elements that enhance the social interactions and contribute to the public realm.

As discussed above, using the single frontage road as a required build-to-line boundary is not practical for this project. Thus, the build-to-line requirement should be applied to the relationship of the buildings to their adjacent site roads that provide access to the front door of each building as shown in pink on the accompanying FAR site plan. These roads have been designed with sidewalks, street trees, and landscape strips to make them resemble streets while remaining access roads for the schools.

The buildings are located such that sidewalks, plazas, vegetation, and other landscape site elements such as bike racks, seatwalls, etc. are placed between them and the adjacent site roads. No parking is proposed between the buildings and the adjacent site roads or along the frontage of the building for the elementary school. Both schools have also been designed with



significant plaza spaces adjacent to the front doors to allow public gathering and create a welcoming experience as discussed with City Staff.

Multiple versions of the site plan were assessed before choosing the provided layout. Factors such as vehicular circulation and queuing, pedestrian accessibility, and environmental conservation played a large role in the final decision. The site has been designed to meet IMC 18.07 Appendix 2, Design Criteria Checklist A as well as Checklist C.

The transition from 228th to the school program area is provided by a stand of existing trees that is being maintained to meet the City of Issaquah tree preservation requirements and provide grade transition from onsite elevations to 228th.

Parking

Per IMC Chapter 18.09 for parking standards, minimum required parking may be calculated in one of two ways. For the elementary school: 3 spaces per classroom (including portable classrooms) or 1 space per 3 seats in auditorium, whichever is greater. For the high school: 4 spaces per classroom (including portable classrooms) plus 1 space per employee and faculty member, or 1 space per 3 seats in auditorium or stadium, whichever is greater. Both equations were used to show how total parking was computed for both schools. See parking memo for further information. A parking structure that provides at least 50% of the required parking has been proposed for the site. The overall required parking for the site is 667 stalls and the project proposes to construct 669 stalls. 447 of those are structured which results in 67% of the required stalls being structured.

Compact stalls are provided to reduce the overall impervious footprint of portions of the site. No compact stalls are proposed as part of the high school parking but the elementary school parking includes 29% of the stalls as compact stalls. The number of bike stalls provided is based on the requirements of Washington State Sustainable Schools Protocol. 8 bike stalls are provided at the ES and 60 stalls are provided at the HS. This exceeds the number required by IMC for this project.

Circulation Facilities and Access

Sidewalks are provided on both sides of the access road. These walks extend from the ROW and provide connection to all site buildings and elements for nonmotorized access. Additionally, an accessible route has been provided from the project site to the ROW. While 228th Ave. SE currently does not provide pedestrian or bicycle facilities in the vicinity of the site the City of Issaquah is currently under construction with improvements at 43rd that include sidewalks. The proposed frontage improvements for 228th will add pedestrian sidewalk and bike lanes along the entire length of the frontage. The sidewalk will be extended to the north to the intersection of 40th Ave. and to the south to the 43rd improvement sidewalk currently being constructed by the City of Issaquah.

IMC 18.07.080(B)(1)(b)(2) lists 7 requirements for multiple building walkway systems. The requirements and how the current site plan meets these requirements are as follows:

Each building has an entry plaza area at the main entrance that has direct connections to site sidewalks. These interconnected site sidewalks extend on both sides of the main entrance drive to the proposed sidewalks along the 228th ROW. In addition to these connections to the



ROW, an additional accessible route to the 228th ROW is provided on the south side of the high school (HS) building.

Each building has a large entry plaza and sidewalks that extend parallel to the building entrance that connects to the site walkways. In addition to these walkways, all site elements (buildings, play fields, etc.) have at least one walkway connection that connects to other walkways on site such that it is possible to walk from one element to the other on constructed walkways. Each public parking area on the site has at least one walkway through or immediately adjacent to it that provides direct connectivity to the buildings and other site walkways.

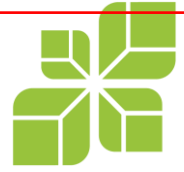
Continuous walkways have been provided to access all parking lots and provide connection to the various buildings and site elements located throughout the project. All sidewalks have been designed to be separated from vehicle travel areas by a concrete curbing and vertical separation to provide a barrier free pedestrian experience and minimize pedestrian crossings of vehicular travel areas. A continuous walkway has been included on both sides of the main access road through the site from the 228th ROW until the south end of the bus drop-off area for the elementary school (ES). The sidewalk from the south end of the ES was not extended along the south side of the HS bus drop off and parking access because this area is part of the driveway to the parking lot for bus and vehicle parking on the south side of the high school building. This driveway does not provide vehicle travel that extends beyond the parking lot and is therefore not a roadway. Extending the walkway along the south side of the road would require nonmotorized users to cross the driving surface in an area where buses are making complicated movements as well as increase impervious surface, extend disturbed area, and reduce the project's ability to maintain the proposed tree buffer requested by the neighbors. It is our preference to have nonmotorized users cross at or prior to the ES to minimize this safety conflict. Additionally, adding a sidewalk along the south will put more students against the southeast property line and reduce available site buffer from neighboring properties. A continuous walkway was only included on one side of the ES and HS parent drop-off to encourage drop-off on the designated side and reduce the number of pedestrian/vehicle conflicts on site. No dead-end walks are proposed for this project.

Bicycle lanes along 228th have been provided in accordance with City of Sammamish road standards for a principal arterial. Once onsite the traffic level drops significantly and the onsite private road is intended to be a non-arterial roadway. As a result the intention is for bicyclists to use the roadway to access the school without the need for dedicated bike lanes similar to how a roadway in a neighborhood would function.

Landscape and Vegetation

Per IMC Table 18.12.060(A) and Table 18.12.070(B)(3), the project shall comply with the landscape standards for Community Facilities. Per IMC 18.07.480(E)(14), the project must comply with Central Issaquah Standards Chapter 10.0, Landscape, including Landscape and Decorative Requirements for Structured Parking Areas. The proposed landscape design complies with the landscape standards for Community Facilities with some minor deviations applied for in the submitted AAS requests. From these requirements we understand the following requirements exist:

1. Per CIDDS Chapter 10.10, the minimum density of retained and replanted trees is 4 significant trees (or their equivalent size in caliper inches at 4.5 feet above ground) per 5,000 square feet of developable site area. Based on a site area of 40.79 Acres (1,776,913 SF) the project needs to retain or replant 1422 (1776913/5000 x 4). Note



that this area does not remove the undevelopable areas of the site and may be adjusted during land use since the requirement is based on developable area.

2. Per CIDDS Chapter 10.13, 25% of the total caliper of all significant trees in the developable site area is to be retained.

The current site plan is a result of balancing neighbor buffering desires, City Code requirements, and school program needs. Below is a summary of the existing trees on the site, what is being removed, and percentages remaining.

Total number of trees	2847
Total Caliper	46887
Number of Saved Trees	662
Caliper of Saved Trees	10903
Number of Trees Removed	2185
Caliper of trees Removed	35984

From the above requirement the projects intent is to replant the remaining 884 trees onsite to meet the 1422 tree requirement noted in item 1 above. For the requirement of item 2 (tree caliper saved) this results in a tree save of approximately 23%. The project is asking for relief from this standard as allowed by the code and outlined below.

The trees identified for retention were selected based on the criteria outlined in section 10.13 of the CIDDS for the three priorities. The City requirements with how the project meets each of these in bold after each:

A. Tree Retention Requirements:

1. General Tree Retention Requirements: Significant trees on lots proposed for project development or redevelopment in Central Issaquah shall be retained as follows:

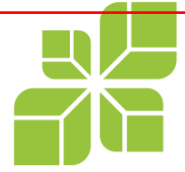
- a) 25% of the total caliper (4.5 feet above ground or "dbh") of all significant trees in Developable Site Area shall be retained except as modified by "Modification to Tree Retention Requirements" below.

Modifications to the Tree Retention Requirements are discussed below.

2. Priority of Tree Retention Requirements: Significant trees shall be retained in the following priority order:

- a) Priority One: Development Standards: 10.0 Landscape Updated: Ord 2779 - 9-28-16 (Ord 2773 - 07-27-16; Ord 2754 - 12-22-15) Page 11 of 18

- 1) Significant trees, especially Landmark trees, which can integrate into, and enhance, a development, such as part of a Community Space;



The trees selected for retention are significant trees consisting of mainly Douglas Fir and Big Leaf Maple grouped together along the project's perimeter. Additionally, these trees were saved to provide larger scale, natural buffering to the neighboring properties and protecting the existing steep slopes along the 228th ROW.

2) Significant trees on slopes greater than twenty (20) percent;

The only portion of our site with slopes greater than 20% are along the 228th ROW line and within the tree save area proposed.

3) Significant trees adjacent to critical areas and their associated buffers;

Trees adjacent to the onsite wetland are being retained where feasible. Note this has caused increase in wall height to protect these trees.

4) Significant trees over sixty (60) feet in height or greater than eighteen (18) inches dbh.

The project site is very wooded with many large trees. Keeping trees along the edge of the site allows them to be used as buffer and meet the goals of the project. Some significant trees are being removed based on the required program area.

b) Priority Two:

1) Healthy tree groupings whose associated undergrowth can be preserved;

In the proposed tree save area the intent is to leave these areas as undeveloped and undergrowth in tack as noted in this priority.

2) Other significant native evergreen or deciduous trees; and

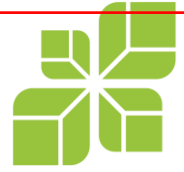
Numerous significant trees area being retained.

3) Other significant nonnative trees.

None noted within tree save area.

c) Priority Three: Alders and cottonwoods shall be retained when all other trees have been evaluated for retention and are not able to be retained except where adjacent to open space, wetlands or creek buffers.

Alders and cottonwood trees are being maintained where other trees exist as part of a tree save area. No single alder or cottonwood trees are proposed to be retained.



From the CIDDs Chapter 10.13.B modifications to the tree retention requirements are allowed with director approval and meeting the requirements outlined. Based on our site conditions we will be requesting relief from the tree save area. For ease of discussion the City Code is provided below with proposed responses provided in bold after each requirement.

- B. Modification to Tree Retention Requirements: A reduction of the tree retention requirements may be approved by the Director provided the following criteria 1-4 and/or criteria 5 are met. In all modifications, criteria 6 is required to be met:
1. The modification is consistent with the purpose and intent of this Chapter, and the Central Issaquah Plan goals and policies.
Response: The project is meeting the compact school criteria and clustering of schools to minimize development footprint but due the tight nature of the site, steep slopes, and neighbor buffer constraints. Some examples of the clustering includes using the access for the high school and elementary school, sharing event parking, and reduced surface parking by adding structured parking above the 50% required standard.
 2. The modification incorporates the retention of a grouping(s) of smaller trees that make up the equivalent diameter inches and retains other natural vegetation occurring in association with the smaller tree grouping(s).
Response: The project proposes to save large groups of trees in order to minimize small groups or individual trees that may not survive construction. By staying away from a large area of trees we believe that the survivability of the trees and constructability of the site will not be in conflict.
 3. The modification is necessary because the size, shape, topography, location of the subject property may jeopardize the reasonable use of the property and reasonable alternatives do not exist.
Response: As noted above and in previous meetings, the site for the school is very constrained in location, areas for access, and topography. The project team has reviewed multiple site plan options and believe that the current version best balances the City Code requirements, neighbor concerns, and school needs. These constraints include access location, queuing length for the elementary school, solar orientation, site grading, ADA access, and a number of other items. No reasonable site plan alternatives exist meeting the tree retention criteria.
 4. The modification is necessary because the proposed buildings and site layout, required ingress/egress, existing and proposed utility locations, trails, storm drainage improvements or similar constraints may jeopardize the reasonable use of the property and reasonable alternatives that are consistent with the Central Issaquah Plan do not exist.
Response: As noted above, the project site is very constrained. The proposed access location uses the existing access road to minimize the removal of trees to access the site and maximize intersection spacing from existing intersections. The location of the school buildings and associated program areas have been laid out to best fit the topography to limit grading, minimize retaining wall heights, and maximize tree retention. The site has also been designed to use the existing utility stub locations and stormwater outfalls. Changes to this site plan will impact the usability of this site for an elementary and high school as designed.
 5. The modification is necessary to provide solar access to a building that incorporates active solar devices. Windows are solar devices only when they



are south-facing and include special storage elements to distribute heat energy.

Response: Not applicable for proposed use.

6. The applicant replaces trees on site and/or off-site or pays a fee in-lieu-of in accordance with 10.14.C-D Replacement Trees for reductions less than the minimum tree density requirement.

Response: The project proposes to provide replacement trees onsite where feasible.

The tree retention areas identified are intended to maintain their natural forested condition. Only minimal work to the existing vegetation is proposed in these areas. Work will be limited to maintenance necessary to remove invasive species and any dead/dying vegetation that poses safety risks.

If you have any questions, please call me at (253) 383-2422.

Sincerely,

Todd Sawin, PE
Principal

TCS/

c: Tom Mullins, Issaquah School District
Jean Stolzman, Bassetti Architects

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